Dario Bressanini

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6500093/publications.pdf

Version: 2024-02-01

47 papers	1,017 citations	430442 18 h-index	454577 30 g-index
47 all docs	47 docs citations	47 times ranked	387 citing authors

#	Article	IF	Citations
1	Positronium chemistry by quantum Monte Carlo. I. Positronium-first row atom complexes. Journal of Chemical Physics, 1998, 108, 4756-4760.	1.2	86
2	Positron chemistry by quantum Monte Carlo. II. Ground-state of positron-polar molecule complexes. Journal of Chemical Physics, 1998, 109, 1716-1720.	1.2	63
3	Robust wave function optimization procedures in quantum Monte Carlo methods. Journal of Chemical Physics, 2002, 116, 5345-5350.	1.2	63
4	Stability of four-unit-charge systems: A quantum Monte Carlo study. Physical Review A, 1997, 55, 200-205.	1.0	60
5	Quantum Monte Carlo investigation of small 4He clusters with a 3He impurity. Journal of Chemical Physics, 2000, 112, 717-722.	1.2	49
6	Positron and positronium chemistry by quantum Monte Carlo. IV. Can this method accurately compute observables beyond energy?. Journal of Chemical Physics, 1999, 111, 108-114.	1.2	48
7	Positron and positronium chemistry by quantum Monte Carlo. V. The ground state potential energy curve of e+LiH. Journal of Chemical Physics, 2000, 113, 6154-6159.	1.2	44
8	Unexpected Symmetry in the Nodal Structure of the He Atom. Physical Review Letters, 2005, 95, 110201.	2.9	44
9	An investigation of nodal structures and the construction of trial wave functions. Journal of Chemical Physics, 2005, 123, 204109.	1.2	40
10	Nodal surfaces of helium atom eigenfunctions. Physical Review A, 2007, 75, .	1.0	39
11	Stability and positron annihilation of positronium hydrideL=0,1,2states: A quantum Monte Carlo study. Physical Review A, 1998, 57, 1678-1685.	1.0	33
12	Positron and positronium chemistry by quantum Monte Carlo. III. Ground state of [OH,Ps], [CH,Ps], and [NH2,Ps] complexes. Journal of Chemical Physics, 1998, 109, 5931-5934.	1.2	24
13	Nonadiabatic wavefunctions as linear expansions of correlated exponentials. A quantum Monte Carlo application to H2+ and Ps2. Chemical Physics Letters, 1997, 272, 370-375.	1.2	23
14	Quantum Monte Carlo study of the Hâ¯ impurity in small helium clusters. Journal of Chemical Physics, 2000, 112, 69-76.	1.2	23
15	Implications of the two nodal domains conjecture for ground state fermionic wave functions. Physical Review B, 2012, 86, .	1.1	23
16	Comparison of different propagators in diffusion Monte Carlo simulations of noble gas clusters. Journal of Chemical Physics, 2003, 119, 5601-5606.	1.2	19
17	Between Classical and Quantum Monte Carlo Methods: â€œVariationalâ€•QMC. Advances in Chemical Physics, 0, , 37-64.	0.3	19
18	Many-electron correlated exponential wavefunctions. A quantum Monte Carlo application to H2 and He2+. Chemical Physics Letters, 1995, 240, 566-570.	1.2	18

#	Article	IF	Citations
19	Time step bias improvement in diffusion Monte Carlo simulations. Physical Review E, 2000, 61, 2050-2057.	0.8	18
20	Stability and production of positronâ€“diatomic molecule complexes. Journal of Chemical Physics, 2001, 114, 10579-10582.	1.2	18
21	On the nodal structure of single-particle approximation based atomic wave functions. Journal of Chemical Physics, 2008, 129, 054103.	1.2	18
22	Positron Binding to Lithium Excited States. Physical Review Letters, 2012, 109, 223401.	2.9	18
23	What Is the Shape of the Helium Trimer? A Comparison with the Neon and Argon Trimers. Journal of Physical Chemistry A, 2011, 115, 10880-10887.	1.1	17
24	Compact boundary-condition-determined wave function for positronium hydride (PsH). Journal of Chemical Physics, 2003, 119, 7037-7042.	1.2	16
25	Improved diffusion Monte Carlo propagators for bosonic systems using ItÃ´ calculus. Journal of Chemical Physics, 2006, 125, 184106.	1.2	16
26	Nodal surfaces and interdimensional degeneracies. Journal of Chemical Physics, 2015, 142, 214112.	1.2	16
27	Stability of four-body systems in three and two dimensions: A theoretical and quantum Monte Carlo study of biexciton molecules. Physical Review A, 1998, 57, 4956-4959.	1.0	14
28	Quantum Monte Carlo calculations of molecular electron affinities: First-row hydrides. Journal of Chemical Physics, 1999, 111, 6755-6758.	1.2	14
29	Explicitly correlated trial wavefunctions in quantum Monte Carlo calculations of excited states of Be and Be-. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 257-266.	0.6	14
30	Stability ofHe23HeN4andHe33HeN4L=0Clusters. Physical Review Letters, 2003, 90, 133401.	2.9	11
31	Two positrons can form a chemical bond in (PsH)2. Journal of Chemical Physics, 2021, 155, 054306.	1.2	10
32	Linear expansions of correlated functions: Variational Monte Carlo case study. International Journal of Quantum Chemistry, 1999, 74, 23-33.	1.0	9
33	Generalized variational principle for excited states using nodes of trial functions. Physical Review E, 2011, 84, 046705.	0.8	9
34	The stability of e+Hâ^'2. Journal of Chemical Physics, 2021, 154, 224306.	1.2	9
35	Spatial-partitioning-based acceleration for variational Monte Carlo. Journal of Chemical Physics, 1999, 111, 6180-6189.	1.2	8
36	The Structure of the Asymmetric Helium Trimer ³He⁴He₂. Journal of Physical Chemistry A, 2014, 118, 6521-6528.	1.1	8

#	Article	IF	Citations
37	A diffusion Monte Carlo accurate interaction potential between H and PsH. Journal of Chemical Physics, 2000, 112, 1063-1065.	1.2	7
38	Delayed rejection variational Monte Carlo. Journal of Chemical Physics, 2004, 121, 3446-3451.	1.2	7
39	Quantum Monte Carlo calculations of the dimerization energy of borane. Journal of Chemical Physics, 2011, 135, 094503.	1.2	7
40	Structure of LiPs ground and excited states. Physical Review A, 2018, 97, .	1.0	7
41	Energetics and structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mi>Ps</mml:mi><mml:mtext>â€“</mml:mtext> using a molecular approach. Physical Review A, 2019, 99, .	1.0	7
42	Response to â€œComment on â€˜Positron and positronium chemistry by quantum Monte Carlo. IV. Can this method accurately compute observables beyond energy?â€™â€‰â€•[J. Chem. Phys. 111, 108 (1999)]. Journal of Chemical Physics, 2000, 112, 3928-3929.	1.2	6
43	e+(PsH)2: A three-positron molecule with a positronic chemical bond. Journal of Chemical Physics, 2022, 156, 154302.	1.2	5
44	Angular Momentum and the Two-Dimensional Free Particle. Journal of Chemical Education, 1998, 75, 916.	1.1	3
45	Internal structure of the positronium ion <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">P</mml:mi><mml:msup><mml:mrow><mml:mi mathvariant="normal">s</mml:mi></mml:mrow><mml:mo>â^’</mml:mo></mml:msup></mml:mrow></mml:math>. Physical Review A, 2021, 104, .	1.0	3
46	A spline approach to trial wave functions for variational and diffusion Monte Carlo. Journal of Chemical Physics, 1999, 111, 6230-6237.	1.2	2
47	Critical stability of the three-body system <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mi>Z</mml:mi><mml:mo>,</mml:m	1.0	2